To: Wilcox, Michelle[wilcox.michelle@epa.gov]; Edmondson, Lucy[Edmondson.Lucy@epa.gov]; Grandinetti, Cami[Grandinetti.Cami@epa.gov]; Lidgard, Michael[Lidgard.Michael@epa.gov]; Mann, Laurie[mann.laurie@epa.gov]; Chung, Angela[Chung.Angela@epa.gov]; Burgess, Karon[Burgess Karon@epa.gov]

Karen[Burgess.Karen@epa.gov]

Cc: Croxton, Dave[Croxton.David@epa.gov]; Soscia, Marylou[Soscia.Marylou@epa.gov]

From: Psyk, Christine

Sent: Fri 5/26/2017 3:46:50 PM

Subject: RE: for your review - draft agenda for WQ meeting with Ecology next week

DRAFT-EcyEPAAgenda053117 (002).docx

Michelle, I had a couple of comments on the agenda as per the attached revision. If we do not get any items from Peter, let's remove the Puget Sound topic under coordination. I will call Mary Lou to discuss the Columbia River topics. Thanks for your preparation and coordination of us for this meeting.

Christine Psyk, Acting Office Director

EPA Region 10, OWW

206-553-1906

Psyk.christine@epa.gov

From: Wilcox, Michelle

Sent: Thursday, May 25, 2017 2:00 PM

To: Psyk, Christine <Psyk.Christine@epa.gov>; Edmondson, Lucy

<Edmondson.Lucy@epa.gov>; Grandinetti, Cami <Grandinetti.Cami@epa.gov>; Lidgard, Michael <Lidgard.Michael@epa.gov>; Mann, Laurie <mann.laurie@epa.gov>; Chung, Angela

<Chung.Angela@epa.gov>; Burgess, Karen <Burgess.Karen@epa.gov>

Cc: Croxton, Dave < Croxton. David@epa.gov>; Soscia, Marylou < Soscia. Marylou@epa.gov>

Subject: for your review - draft agenda for WQ meeting with Ecology next week

Importance: High

Please review the draft agenda attached per our discussion yesterday and send me any edits in track changes, or via email or phone call. Also, please note the comments field. I am leaving early today but will be in all day tomorrow and will send off to Ecy by COB tomorrow. Thanks everyone for a good discussion yesterday!

Michelle



Michelle Wilcox

Governmental Liaison

Washington Operations Office

US EPA Region 10

phone: 360.753.9469

To: Croxton, Dave[Croxton.David@epa.gov]; Mann, Laurie[mann.laurie@epa.gov]; Brown,

Leah[Brown.Leah@epa.gov]

Cc: Byrne, Jennifer[Byrne.Jennifer@epa.gov]

From: Zell, Christopher

Sent: Fri 5/26/2017 3:41:10 PM

Subject: Draft Deschutes Briefing - your comments please :)

Deschutes Briefing Update 05262017 draft.docx

Hi Folks,

Your input, wisdom, and red pen marks are greatly appreciated. Our briefing with Christine is scheduled for June 6th. If I receive your comments by EOB June 2nd, I will be able to incorporate them into the version Christine and Dan receive on June 5th.

Have a great holiday weekend,

Chris

Chris Zell, PHWQ

TMDL Project Manager | Physical Scientist

U.S. Environmental Protection Agency | Region 10

P: (206) 553.1353 | zell.christopher@epa.gov

ED_001270_00003199 EPA_000600

EPA/ECY WQ Annual Program Meeting May 31st 1 – 5 pm Ecology HQ, room 1S-16/17, Olympia, WA

Purpose: For EPA and ECY to check in on key water quality issues and progress in meeting the commitments in the PPA.

Draft Agenda

Time	Topic	Discussion Lead
30 min	Introductions, Opening Remarks, Current Events	Christine/Heather
45 min	 NPDES: program updates NWEA petition MOA revisions EPA's Permit Quality Review report - status 	Lidgard/Burgess
45 min	 Puget Sound nutrient related issues: an update from Ecology on modeling results, conclusions to date, and path forward Budd Inlet TMDL 	
10 min	Break – if needed	
30 min	: Opportunities for coordination in high-profile locations/programs? • Puget Sound • Columbia River • Temperature TMDL • NEPA analysis – EPA will be a cooperating agency, is Ecy? • Mapping PAHs in CR basin – should be done in a few months • Cold water refuges • GAO investigation survey • Non-point source program	
45 min	Spokane River PCB issues:	Chung

ED_001270_00003198 EPA_000601

20 min	Roundtable: anything else?, either PPA related or not?	
15	Closing Remarks and Follow-ups	Christine/Heather
min		

087E/

ED_001270_00003198 EPA_000602

To: Croxton, Dave[Croxton.David@epa.gov]; Mann, Laurie[mann.laurie@epa.gov]

From: Zell, Christopher

Sent: Tue 2/14/2017 4:17:06 PM

Subject: INTERNAL and DELIBERATIVE - Resubmit Letter Discussion

<u>Listing Summary.xlsx</u> <u>Resubmit objectives.docx</u>

Good Morning,

I have attached a few [draft] thoughts for us to rally around during our discussion with Andrew today.

Thank you,

Chris

Chris Zell, PHWQ

TMDL Project Manager | Physical Scientist

U.S. Environmental Protection Agency | Region 10

P: (206) 553.1353 | zell.christopher@epa.gov

To: Croxton, Dave[Croxton.David@epa.gov]

From: Zell, Christopher

Sent: Wed 1/18/2017 5:05:46 PM Subject: INTERNAL and DELIBERATIVE

Deschutes Options 01202017.docx

Hi Dave,

Please find attached an updated briefing document to support our discussion with Dan on Friday. I look forward to your thoughts!

Chris

To: Opalski, Dan[Opalski.Dan@epa.gov]

Cc: Croxton, Dave[Croxton.David@epa.gov]; Mann, Laurie[mann.laurie@epa.gov]; Byrne,

Jennifer[Byrne.Jennifer@epa.gov]

From: Zell, Christopher

Sent: Tue 9/20/2016 2:15:41 AM

Subject: INTERNAL and DELIBERATIVE: Deschutes TMDL Briefing

Deschutes TMDL Briefing 09212016.docx

Hi Dan,

Please find attached a briefing paper that provides both a refresher as well as a status update following discussions with NWEA, Ecology, OGC, and HQ.

Thank you,

Chris

To: Byrne, Jennifer[Byrne.Jennifer@epa.gov]; Croxton, Dave[Croxton.David@epa.gov]; Mann, Laurie[mann.laurie@epa.gov]
From: Zell, Christopher
Sent: Fri 9/16/2016 11:13:55 PM
Subject: INTERNAL and DELIBERATIVE: Draft Deschutes Briefing for Dan
Deschutes TMDL Briefing 09152016 v2.docx

Happy Friday,

Please find attached a draft (work in progress) briefing document that I am preparing for Dan. It would be very helpful if you could share your thoughts and edits with me by EOB Monday (9/19) so that I can revise on Tuesday and share with Dan at least 24 hours before our meeting.

FYI – I will be out of the office on Monday and may be working remotely / intermittently on Tuesday at the South Sound Science conference.

Thanks again for your continued guidance with this project.

Have a groovy weekend,

Chris

To: Opalski, Dan[Opalski.Dan@epa.gov]
Cc: Byrne, Jennifer[Byrne.Jennifer@epa.gov]; Croxton, Dave[Croxton.David@epa.gov]; Mann, Laurie[mann.laurie@epa.gov]
From: Zell, Christopher

Sent: Mon 6/20/2016 8:37:51 PM

Subject: Deschutes TMDL Briefing Document Deschutes TMDL Briefing 06202016.docx

Hi Dan,

Please find attached a briefing document to help guide our internal Deschutes TMDL discussion scheduled for $6/29/2016\ 3:00\ pm-4:00\ pm$.

If you have any questions, please let me know. I am happy to provide any additional detail(s).

Respectfully,

Chris

ED_001270_00003927 EPA_000607

Zell, Christopher[zell.christopher@epa.gov] To: From: Ramrakha, Jayshika Sent: Thur 1/21/2016 11:52:24 PM Subject: Deschutes SW Comments Good Morning Chris, Thanks for the opportunity to comment on the Deschutes River TMDL. Below are my comments and suggestions. I am happy to explain further when we meet. compliance of their permit limits which is less than 25NTU's. I find this to be very confusing and contradictory. If the limit is no fine sediments then anything up to 25NTU does not make sense. It would be hard to determine compliance. Requiring no visual accumulation of fine seds is more stringent then the permit limits which is a good thing but then having permittees do both won't work. Maybe we could suggest that they don't make references to the 25NTU standard and only have the WLA be no visual accumulation (not sure how realistic this is). watershed. This is not an accurate statement because EPA also administers NPDES permits of Federal Facilities and on Indian Reservations. future permittees in these categories. I am a little concerned with their idea here. Since they don't have any reserve capacity for future growth, new permittees should have a zero discharge. Not sure how realistic it is, but because there's no reserve WLA new permittees should not discharge. Not sure if there can be a new permittee in the watershed because just the fact that a new facility applies for a permit means they discharge. In their response to comments on page 265, DERT3 Response, Ecology says that New point sources discharging to surface water will have to demonstrate their compliance with the TMDL before being granted a NPDES permit. I think this will be unachievable since our regulations say that no reserve WLA means a zero discharge and if they are a zero discharge then why would they apply for an NPDES permit ©.

• ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ I Joint Base Lewis Mcchord is in this watershed and discharges to Clover Creek, Murray Creek, American Lake, and to Puget Sound via the JBLM Stormwater Canal. Because they are a point source in this watershed, they should also get a WLA.

•□□□□□ Tier II antidegradation for new NPDES Permits (Pg. 57)

• □ □ □ □ □ □ Tier II antidegradation (see WAC 173-201A-320) is used to ensure that waters of a higher quality than the criteria assigned in the water quality standards are not degraded unless such lowering of water quality is necessary and in the overriding public interest. Any new permitted discharge to the Deschutes River or Percival Creek that will create a measureable change (as defined in WAC 173-201A-320 Section 3) for a pollutant covered by this TMDL, must meet the receiving water body's loading capacity at the point of discharge (or at a point of compliance in a mixing zone) in a location where this TMDL identifies the river or creek currently meets water quality standards. How realistic is this?

Figures 14 and 15 of this report identify model reaches (by river kilometer) where the current water quality condition is better than the standards; either the daily minimum (DMin) DO or daily maximum (DMax) pH is better than criteria. New NPDES-permitted facilities that have discharges of low pH or pollutants that lower DO must not allow a measureable change (DO decrease of 0.2mg/L or greater and pH change of 0.1 units or greater) in the current loading capacity in the Deschutes River or Percival Creek for DO or pH.

New point sources discharging to reaches identified as meeting the water quality standards for fecal coliform bacteria must not produce a measureable change (bacteria level increase of 2cfu/100mL or greater) from the loading capacity identified in Figures 33 and 34 in Roberts et al. (2012). (New point sources must have a zero WLA since there isn't a reserve for future WLAs. Stating that new sources must not have a measurable change should be changed to new sources are to have zero discharge).

None of the Deschutes River reaches surveyed meets good habitat quality conditions for fine sediments in the gravels. However, other regions not assessed may meet those condition thresholds. Specific actions and/or institutional safeguards may be necessary to prevent deterioration in fine sediment as further development or other changes occur in the watershed. Requirements and conditions placed on new NPDES permits anywhere within the TMDL boundary should not exceed the wasteload allocations specified by this TMDL.

Currently there is no part of Percival Creek or the Deschutes River meeting the temperature water quality standards. Therefore no new discharges may increase the receiving water body temperature greater than 0.3°C anywhere along those two waterbodies.

Exceptions for new permitted discharges may be allowed if Ecology determines that the lowering of water quality is necessary and in the overriding public interest as determined by Section 4 of WAC 173-201A-320. (New permittees have a 0 WLAs since there is no reserve WLA. because new permittees are not allowed to discharge, exceptions don't apply).

Thanks,

Jayshika Ramrakha Watershed Stormwater Coordinator Watershed Unit, Office of Water and Watersheds U.S. Environmental Protection Agency 1200 Sixth Avenue, Suite 900 (OWW-134) Seattle, Washington 98101 206-553-1788

From: Edmondson, Lucy Wed 10/21/2015 10:33:03 PM Sent: Subject: FW: Deschutes River TMDL one-pager Deschutes TMDL Summary.docx Hi Dave Here is the one pager that Jo sent. If you have any additional comments or thoughts, please let me know. I will look forward to the conversation tomorrow Also, just to clarify, I have met Heather in an EPMT meeting, and the primary purpose of Friday's meeting is on the WA CAFO permit. Thanks for letting me know that she is likely to be at tomorrows meeting too. Cheers Lucy Lucy Edmondson Director, Washington Operations Office US EPA Region 10 300 Desmond Drive Lacey, WA 98503

To:

office: 360.753.9082

Croxton, Dave[Croxton.David@epa.gov]

cell: 206.735.5301

From: Henszey, Jo

Sent: Wednesday, October 21, 2015 10:44 AM

To: Edmondson, Lucy

Subject: Deschutes River TMDL one-pager

Lucy, sorry for the delay in getting this to you. Please let me know if you have questions.

Jo

Jo Henszey

Governmental Liaison

Washington Operations Office

USEPA, Region 10

360-753-9469

DESCHUTES RIVER TMDL

Portions of the Deschutes River, Percival Creek, and Budd Inlet tributaries do not meet water quality standards and are on the CWA Section 303(d) list for one or more of the following parameters: fecal coliform bacteria, temperature, DO, pH, or fine sediment.

Ecology is taking a phased approach, they plan to first move forward with the freshwater section. They have completed the public comment period and plan to submit the TMDL to EPA within the next month or so.

The boundaries for the freshwater section include: The Deschutes River (above Deschutes Falls), Percival Creek and its tributaries, Black Lake Ditch, and the freshwater tributaries flowing into Capitol Lake and Budd Inlet. The pollutants addressed are fecal coliform bacteria, temperature, fine sediments, DO, and pH. Ecology will *not* assign numeric load allocations for nitrogen in the freshwater section. The implementation actions identified in the freshwater TMDL are expected to provide benefits to the nitrogen issues in Budd Inlet.

Ecology describes the benefits to this phased approach:

- The technical work for the freshwater section is complete.
- EPA can approve the submitted freshwater TMDL this year.
- Stakeholders applying for grant funding from Ecology can receive extra points for addressing an approved TMDL. They can use the funding to implement the actions identified in the TMDL to improve water quality in the freshwater sections of the watershed.
- This validates the time and work already invested by the advisory group (\sim 10+ years).
- The local partners and stakeholders can continue or begin implementing the action items identified in the TMDL.
- It reinforces Ecology's ongoing commitment to improving the watershed.

Tribal Consultation - Squaxin Island Tribe (SIT)

The SIT believe the TMDL will not meet several of the required water quality parameters even if fully implemented. They suggest that if permit-exempt wells are not stopped or mitigated, then the temperature standard: (1) will not be met by 2065; and (2) will continue to be unmet by larger amounts as new permit-exempt wells are drilled (which violates anti-degradation requirements). NOTE: The CWA TMDL process does not address water quantity issues (EPA has provided that clarification to the SIT). The SIT also believe the TMDL relies on voluntary actions on private property for parameters such as temperature are will likely be unsuccessful. The SIT has threatened to sue if this TMDL is approved.

Marine sections-Phase II

Ecology will address Capitol Lake and Budd Inlet after additional modeling is finished. They

will further refine Budd Inlet and Puget Sound modeling to determine the extent of the impacts to Budd Inlet from the northern TMDL boundary. We anticipate that it will take several years to complete the marine TMDL.

Capitol Lake Dam:

Various groups, for example Capitol Lake Improvement and Protection Association (CLIPA) do not believe the 5th Avenue/Capitol Lake dam causes water quality impairment. However, current studies indicate the dam has a detrimental impact on Budd Inlet dissolved oxygen concentration. The negative impact results from the combined effects of circulation in southern Budd Inlet, carbon loading from Capitol Lake, and nitrogen loading from Capitol Lake.

ED_001270_00004591 EPA_000614

To: Mann, Laurie[mann.laurie@epa.gov]; Bilhimer, Dustin (ECY)[DBIL461@ECY.WA.GOV]

Cc: Croxton, Dave[Croxton.David@epa.gov]; Henszey, Jo[Henszey.Jo@epa.gov]; Stewart, William

C.[Stewart.Williamc@epa.gov]
From: Wagner, Lydia (ECY)
Sent: Wed 5/27/2015 8:25:26 PM

Subject: RE: Final Reminder! Draft Deschutes Phase 1 Plan Public Comment Ends today

image004.emz image007.emz image008.emz

Thanks Laurie!

Lydia C. Wagner | Water Cleanup Plan (TMDL) Coordinator | Lydia.Wagner@ecy.wa.gov

WA Department of Ecology | Direct 360.407.6329 | Main 360.407.6000 | Fax 360.407.6305

PO Box 47775 | Olympia, WA 98504-7775 | Street: 300 Desmond Dr. SE | Lacey, WA 98503-1274

http://www.ecy.wa.gov/programs/wq/wqhome.html

From: Mann, Laurie [mailto:mann.laurie@epa.gov]

Sent: Wednesday, May 27, 2015 12:47 PM

To: Wagner, Lydia (ECY); Bilhimer, Dustin (ECY) **Cc:** Croxton, Dave; Henszey, Jo; Stewart, William C.

Subject: RE: Final Reminder! Draft Deschutes Phase 1 Plan Public Comment Ends today

Hi Lydia,

Here are EPA's comments on the draft document. We are happy to meet with you at any time to discuss these comments.

Thanks,

Laurie

From: Mann, Laurie [mailto:mann.laurie@epa.gov]

Sent: Wednesday, May 27, 2015 11:31 AM

To: Wagner, Lydia (ECY)

Cc: Kolosseus, Andrew (ECY); Bilhimer, Dustin (ECY)

ED_001270_00004879 EPA_000615

Subject: RE: Final Reminder! Draft Deschutes Phase 1 Plan Public Comment Ends today

Update.

Lydia, I'll resubmit the comments later today (and may add a few more). That's probably the most efficient way for me to officially comment on the issues that I previously identified as "approvability" related.

From: Mann, Laurie

Sent: Wednesday, May 27, 2015 11:01 AM

To: 'Wagner, Lydia (ECY)'

Cc: <u>akol461@ecy.wa.gov</u>; Bilhimer, Dustin (ECY)

Subject: RE: Final Reminder! Draft Deschutes Phase 1 Plan Public Comment Ends today

Hi Lydia,

Thanks. For the comments that EPA submitted previously, but which haven't been addressed yet by Ecology - - would you be discussing those comments in your response to comments document? I'm thinking you would want to include the comments (and your responses) because the Response to Comments is supposed to document all changes that occur to the draft, in the process of finalizing it. I can resubmit those comments, if that's helpful.

Thanks.

Laurie

From: Wagner, Lydia (ECY) [mailto:LBLA461@ECY.WA.GOV]

Sent: Wednesday, May 27, 2015 10:26 AM

To: Mann, Laurie

Cc: akol461@ecy.wa.gov; Bilhimer, Dustin (ECY)

Subject: RE: Final Reminder! Draft Deschutes Phase 1 Plan Public Comment Ends today

Hi Laurie.

We have the comments you and Jo provided during the EPA/Squaxin Island Tribe Government-to-Government preview and we will, of course, respond to those we did not already address prior to the public release. Since this was the G2G preview, we are not including them in the Response to Comments because we addressed many, if not most of them, before the official public comment period started. We appreciate and acknowledge that EPA is a key stakeholder in this process, and the approver of the TMDL. We will still read any comments received after 5 pm today, and will take action on them if appropriate, but they will not be part of the official Response to Comments section of the TMDL. Please remember we provided an extended 45 day review instead of the standard 30 to allow adequate time to read through this extensive document.

I hope this addresses your concerns.

Lydia

From: Mann, Laurie [mailto:mann.laurie@epa.gov]

Sent: Wednesday, May 27, 2015 10:10 AM

To: Wagner, Lydia (ECY); Bilhimer, Dustin (ECY)

Subject: RE: Final Reminder! Draft Deschutes Phase 1 Plan Public Comment Ends today

Thanks for the quick response, Lydia.

Would you have the option of considering EPA comments that are submitted after the close of the comment period? I'm particularly concerned about comments that I submitted to Ecology previously, that focused on TMDL "approvability" issues.

Thanks.

Laurie

From: Wagner, Lydia (ECY) [mailto:LBLA461@ECY.WA.GOV]

Sent: Wednesday, May 27, 2015 10:07 AM **To:** Mann, Laurie; Bilhimer, Dustin (ECY)

Subject: RE: Final Reminder! Draft Deschutes Phase 1 Plan Public Comment Ends today

ED_001270_00004879 EPA_000617

Hi Laurie,

Sorry, but no, I have not received any comments from Jo or any other EPA staff person since the formal comment period started.

Lydia

Lydia C. Wagner | Water Cleanup Plan (TMDL) Coordinator | Lydia.Wagner@ecy.wa.gov

WA Department of Ecology | Direct 360.407.6329 | Main 360.407.6000 | Fax 360.407.6305

PO Box 47775 | Olympia, WA 98504-7775 | Street: 300 Desmond Dr. SE | Lacey, WA 98503-1274

http://www.ecy.wa.gov/programs/wq/wqhome.html

From: Mann, Laurie [mailto:mann.laurie@epa.gov]

Sent: Wednesday, May 27, 2015 9:59 AM

To: Wagner, Lydia (ECY); Bilhimer, Dustin (ECY)

Subject: RE: Final Reminder! Draft Deschutes Phase 1 Plan Public Comment Ends today

Lydia & Dustin,

Did Jo submit EPA comments to you before she went on vacation? If not, I'm concerned with the possibility that EPA hasn't completed its review (and I know that today is the final day for comments).

Thanks,

Laurie

From: Wagner, Lydia (ECY) [mailto:LBLA461@ECY.WA.GOV]

Sent: Wednesday, May 27, 2015 9:56 AM

Subject: Final Reminder! Draft Deschutes Phase 1 Plan Public Comment Ends today

ED_001270_00004879 EPA_000618

Hi Everyone,

This is a final reminder the public comment period for the draft Deschutes River, Percival Creek, and Budd Inlet Tributaries Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total Maximum Daily Load Water Quality Improvement Report and Implementation Plan ends today, Wednesday, May 27, at 5:00 p.m.

Your input is important to us. We welcome and encourage you to let us know what you like/don't like, suggestions for implementation actions, or ways to improve clarity of the messages.

Public Comment Period mailto:Lydia.Wagner@ecy.wa.gov

April 13 - May 27, 2015

The draft plan is available onli www.ecv.wa.gov/deschute

Printed copies are available at:

- Department of Ecology, 300 Des Lacey, WA
- Tumwater Regional Public Librar Market St, Tumwater, WA

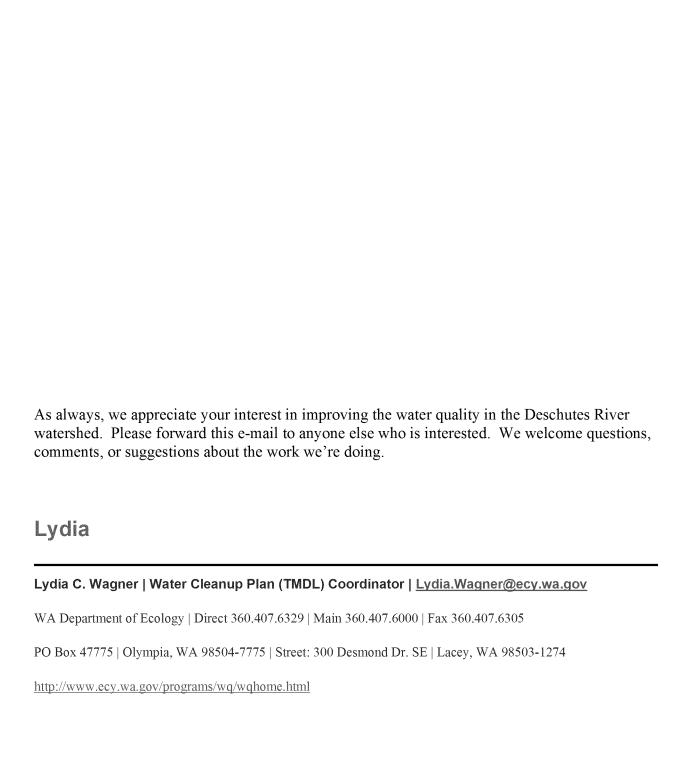
How to submit commer

Send comments by email (preferred) to Lydia.Wagner@ecy.wa.gov or by regular

> Lydia Wagner Department of Ecology PO Box 47775 Olympia, WA 98504-7775

All comments must be received by 5:00 2015.

ED_001270_00004879 EPA_000619







How to submit comments

Send comments by email (preferred) to Lydia.Wagner@ecy.wa.gov or by regular mail to:

Lydia Wagner
Department of Ecology
PO Box 47775
Olympia, WA 98504-7775

All comments must be received by 5:00 p.m. on May 27, 2015.

ED_001270_00004882

EPA_000623

How to submit comments

Send comments by email (preferred) to Lydia.Wagner@ecy.wa.gov or by regular mail to:

Lydia Wagner
Department of Ecology
PO Box 47775
Olympia, WA 98504-7775

All comments must be received by 5:00 p.m. on May 27, 2015.

ED_001270_00004883

EPA_000624

Public Comment Period April 13 – May 27, 2015

The draft plan is available **online** at www.ecy.wa.gov/deschutes.

Printed copies are available at:

- Department of Ecology, 300 Desmond Dr. SE, Lacey, WA
 - Tumwater Regional Public Library, 7023 New Market St, Tumwater, WA

Public Comment Period April 13 – May 27, 2015

The draft plan is available **online** at www.ecy.wa.gov/deschutes.

Printed copies are available at:

- Department of Ecology, 300 Desmond Dr. SE, Lacey, WA
- Tumwater Regional Public Library, 7023 New Market St, Tumwater, WA

To: Burgess, Karen[Burgess.Karen@epa.gov]; Chung, Angela[Chung.Angela@epa.gov]; Contreras, Peter[Contreras.Peter@epa.gov]; Croxton, Dave[Croxton.David@epa.gov]; Davies, Lauris[Davies.Lauris@epa.gov]; Davis, Diane[Davis.Diane@epa.gov]; Eaton, Thomas[Eaton.Thomas@epa.gov]; Freedman, Jonathan[Freedman.Jonathan@epa.gov]; Fullagar, Jill[Fullagar.Jill@epa.gov]; Grandinetti, Robert[Grandinetti.Robert@epa.gov]; Henszey, Jo[Henszey.Jo@epa.gov]; Hunt, Jeff[Hunt.Jeff@epa.gov]; Jennings, Marie[Jennings.Marie@epa.gov]; Karlson, Kristine[Karlson.Kristine@epa.gov]; Kelly, Christine[Kelly.Christine@epa.gov]; Kenknight, Jeff[Kenknight.Jeff@epa.gov]; Knittel, Janette[Knittel.Janette@epa.gov]; Le, Michael[Le.Michael@epa.gov]; Lidgard, Michael[Lidgard.Michael@epa.gov]; Mann, Laurie[mann.laurie@epa.gov]; Opalski, Dan[Opalski.Dan@epa.gov]; Psyk, Christine[Psyk.Christine@epa.gov]; Parkin, Richard[Parkin.Richard@epa.gov]; Szerlog, Michael[Szerlog.Michael@epa.gov]; Tetta, David[Tetta.David@epa.gov]; Vakoc, Misha[Vakoc.Misha@epa.gov]; VanHaagen, Paula[vanhaagen.paula@epa.gov]

From: Henszev. Jo

Sent: Wed 3/18/2015 5:12:09 PM

Subject: FW: Suggested edits to sections 1, 3, and 5

PPA WQ Chapter 9 for 2015 thru 2017.docx

Office of Water Staff,

Below are proposed changes from Ecology. Please review and provide comments/concerns to me as soon as possible.

Thanks.

Jo

From: Levitt, Eli (ECY) [mailto:elev461@ECY.WA.GOV]

Sent: Wednesday, March 18, 2015 8:37 AM

To: Henszey, Jo

Subject: Suggested edits to sections 1, 3, and 5

Importance: High

Hello Jo.

My apologies for sending this late. Here are some proposed changes to sections 1, 3, and 5 of Chapter 9. Our lead staff on these sections have been very busy with hearings on the Water Quality Standards and the preparation to release the WQ Assessment.

Thanks for sharing it with your colleagues (in advance),

Eli

Water Quality Program – Update for 2015-2017

Introduction

Ecology administers most of the federal Clean Water Act (CWA) based programs throughout Washington State. EPA's role is to:

- Oversee the implementation of State-authorized programs.
- Provide technical and analytical support for State-authorized programs.
- Directly implement non-authorized programs, in most cases with state assistance.

This Agreement reflects the mutual understandings reached between Ecology and EPA for program implementation and extent of oversight.

The objectives and activities listed in this Agreement cover many aspects of water quality protection in Washington State. However, only a subset of these activities is funded by EPA grants.

One of EPA's grants to Ecology is the Performance Partnership Grant (PPG) which is provided in accordance with Section 106 of the CWA. This Agreement will also serve as the work plan for PPG funds provided to Ecology. The specific activities in this work plan, funded by the PPG, are identified at the end of each numbered subsection below.

Full-time Employee Summary

Eli and Garret will update: The total number of Ecology FTEs funded by the EPA Water Quality grant under this agreement is 28.9. The total project amount for water quality projects and activities over the two year period of the Agreement is \$6,489,118, which consists of \$5,901,491 (26.3 FTEs) federal money and \$587,627 (2.6 FTEs) required state matching funds.

Performance Partnership Grant Objectives, Activities, and Measures

1. Nonpoint Source Pollution Control				
Ecology Helen Bresler (360) 407-6180 hbre461@ecy.wa.gov	EPA Jayne Carlin (206)553-8512			
Objectives				

- Programs are designed to prevent nonpoint source pollution and habitat alteration, and protect water quality and human health.
- Programs are designed to clean up nonpoint source pollution.
- Programs are designed to restore aquatic habitats, and protect water quality and human health.
- Financial assistance is provided to water quality partners and is targeted to the highest environmental needs.

Activities and Measures

- 1A. Ecology will implement the actions identified in the 2015 revised Water Quality Management Plan to Control Nonpoint Source Pollution (also known as the Washington State Nonpoint Plan) once it is approved by EPA, depending on available funds. Ecology will submit an annual end-of-year report by April 1 of each year and EPA will review and provide a satisfactory progress determination to Ecology at or before awarding the CWA 319 grant. EPA will use these reports as the basis for determining continued eligibility for future CWA Section 319 grants.
- 1B. Ecology and EPA will submit and award the CWA Section 319 grant on a biennial basis rather than an annual basis. For the years in which Ecology applies for the grant, Ecology will submit a grant proposal no later than March 31 and EPA will process the grant and provide funding no later than July 1 of that same year.
- 1C. Ecology will submit semi-annual CWA Section 319 grant progress reports by August 31 and March 1 of each year which cover the previous half of the state fiscal year.
- 1D. Ecology and EPA will continue to participate on Forests and Fish committees and workgroups, particularly the Policy Committee and the Cooperative Monitoring, Evaluation and Research Committee. Ecology and EPA will continue to work with Washington State Department of Natural Resources and other agencies to ensure forest practices rules are implemented to comply with the habitat conservation plan and with state water quality standards and the Clean Water Act.
- 1E. Ecology will enter all past year 319 project data, including load reduction estimates as applicable into the Grants Reporting and Tracking System. All data for FFY 2013 and 2014-funded projects will be entered no later than April 1st, 2014 and 2015 respectively. Yearly load reduction data is due in February 15th each year. (EPA Program Activity Measure (PAM) WQ-9)

1F.

- 1G. Ecology will complete at least two success stories per year. The stories will show progress toward or achievement of water quality standards under EPA PAM WQ-10 guidance, as a result of Nonpoint Source (NPS) implementation measures. These success stories will be housed on Ecology's website so that Ecology can keep them up to date.
- 1H. Ecology will coordinate with EPA on the nonpoint plan during its development. Ecology will complete a draft of the State Nonpoint Plan by April 2015.
- 11. EPA will actively support Ecology as it prepares and issues its nonpoint strategy. EPA will make

sure that their strategies in other areas such as the NEP program do not conflict with the nonpoint efforts and nonpoint plan that Washington is developing.

1J. Ecology and EPA will work together toward final approval of Washington's Coastal Nonpoint Source Control Program (CZARA).

1K.

Ecology will engage in EPA led NEP or Puget sound Action plan efforts that interface with the State's Nonpoint Strategy and Nonpoint Plan.

3. Water Cleanup Plans (TMDLs) and Standards			
Ecology Melissa Gildersleeve (360) 407-6461 mgil461@ecy.wa.gov	EPA -Water Cleanup Plans Laurie Mann (206) 553-1583 mann.laurie@epa.gov		
EPA - Water Quality Standards Angela Chung (206) 553-6511 chung.angela@epa.gov	EPA - Water Quality Assessments David Croxton (206) 553-6694 croxton.david@epa.gov		

Objectives:

- Water cleanup plans (TMDLs) are scheduled, completed, implemented, and their success is evaluated.
- Ecology will move straight to implementation in less complicated watersheds.
- Develop, maintain, and implement surface water quality standards that protect beneficial uses.
- Comprehensively assess water bodies in Washington to assign categories according to water quality, to meet Clean Water Act requirements in sections 303(d) and 305(b).

Activities and Measures - Water Cleanup Plans (Total Maximum Daily Loads)

- 3A. Ecology will report and track on straight to implementation efforts that result in clean water.
- 3B. Ecology and EPA will meet at least once per year to conduct workload planning and evaluation for the development and implementation of TMDLs. Ecology will also provide EPA with annual lists of TMDLs to be completed for the upcoming year and prepare annual TMDL progress reports for the previous year. EPA will provide Ecology with information on TMDLs for federal facilities and tribal lands for the purposes of ongoing coordination. At this meeting, Ecology will report on the pace to produce TMDLs. EPA will work closely with Ecology to decide whether EPA will develop TMDLs. EPA and Ecology will coordinate on any TMDLs EPA proposes to develop before EPA begins work. At least twice per year, EPA will give Ecology regular updates on EPA's review/approval of TMDSs. The review will include information on each TMDL in

process – both current status and expected next steps.

3C. Ecology will report on the management measures in the Spokane River PCB comprehensive plan.

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- 3E. Where Washington is engaged in a TMDL that has cross border issues EPA will provide the leadership for bringing those issues to resolution.
- 3F. Ecology will continue to develop Water Quality Implementation Plans (WQIPs) to implement TMDLs. The WQIPs are watershed-based plans some of which are supported by the CWA 319 program. Ecology will track the implementation of these WQIPs and report on implementation. Yes

Activities and Measures - Water Quality Standards

3H. Ecology will submit the human health criteria and implementation tools rule to EPA in 2015 for approval.

3I.

- 3J. Ecology will provide technical assistance to others in the development of use attainability analyses, variances, and other tools where a change in a standard appears appropriate. Ecology and EPA will work together throughout the development of such water quality standard changes. EPA will provide a timely response to use attainability analyses and other submittals from Ecology that require EPA approval or review.
- 3K. EPA will take the lead in coordinating a process to resolve conflicts created when different standards are adopted for shared waters (tribal and state jurisdictional boundaries).
- 3L. EPA will provide information to Ecology on tribal water quality standards in a timely manner, and will work with the tribes to encourage outreach to state governments and the state's non-tribal citizens.
- 3M. Ecology and EPA will continue to work together on addressing priority nutrient problems to reduce current loadings of nitrogen and phosphorus to surface waters through existing programs and state priorities.
- 3N. EPA and Ecology will regularly share information and meet on an as needed basis, at least once a year, to discuss the status of ongoing and future water quality standard projects.

Activities and Measures – Water Quality Assessments

3O. Ecology will submit the Water Quality Assessment for fresh waters in 2015 and will prepare to conduct a "call for data" to begin the next assessment as soon as EPA approves Category 5 of the Assessment.

- 3P. Ecology will continue to work with EPA to ensure Washington's Watershed Assessment Tracking (WATS) System database has fields equivalent to the data elements defined in EPA's Assessment Database. This will improve the ability to provide consistent reporting at the national level. (PAM WQ-7, EPA National Water Program Fiscal Year 2009 Guidance)
- 3Q. Ecology will continue to track water quality monitoring data in its Environmental Information Management (EIM) database for use in the periodic assessment of water bodies for the Integrated Report.
- 3R. Ecology will tally and justify the number of water bodies / impairments that have moved from Water Quality Assessment Categories 4 or 5 (as listed in the next approved Washington State Water Quality Assessment) to Categories 1 through 3 after approval is received by EPA on the 2014 Assessment. (PAMs SP-10 and SP-11)

5. Groundwater and Underground Injection Control			
Ecology - Groundwater	Ecology - UIC		
Susan Braley (360) 407-6414 subr461@ecy.wa.gov	Mary Shaleen-Hansen (360) 407-6143 maha461@ecy.wa.gov		
EPA - Groundwater Susan Eastman (206) 553-6249 eastman.susan@epa.gov	EPA - UIC Dave Tetta (206) 553-1327 tetta.david@epa.gov		

Objectives:

- Protect groundwater quality, beneficial uses and safe drinking water by ensuring that the groundwater quality standards are met. All groundwater in Washington State is classified and protected as a potential source of drinking water.
- Provide groundwater quality technical assistance to the public; local, state and federal government; as well as permitted facility operators and permit applicants.

Activities and Measures - Groundwater - Base

5A. Ecology will finalize a statewide nitrate prioritization project to provide better mapping and data-

- sharing capabilities on where nitrates are occurring, in partnership with state agencies working on agricultural land issues (Agriculture and Conservation Commission), the Department of Health (DOH), USGS, NRCS, and EPA. Ecology will publish the report and make data available.
- 5B. Ecology and EPA will continue to provide a single point of contact to work with each agency and other stakeholders on the Yakima Groundwater issue and will work to make sure their internal programs are coordinated so agencies and stakeholders get a coordinated message. Ecology Water Quality Program will work to implement activities to address the pollutant sources in the lower Yakima. The Lower Yakima Valley Ground Water Management Area (LYV-GWMA) is functioning with Yakima County acting as lead agency. The GWMA continues work to identify and quantify nitrate sources and establish a long-term nitrate monitoring program. A final Groundwater Management Program is expected in 2017. Funding has been provided by the State Legislature and Ecology remains actively involved. The U.S. Geological Survey has completed an enhanced SPARROW (SPAtially Referenced Regressions On Watershed attributes) model and Ecology will use it in identifying and quantifying non-point nutrient sources and the role of nutrients in groundwater. (Charlie needs to update this)
- 5C. Ecology will provide technical consultation on groundwater quality issues related to nonpoint sources of groundwater contamination, depending on needs and resources available.
- 5D. .
- 5E. Ecology will protect safe drinking water through continued work with DOH, including incorporating the results of source water assessments of drinking water systems into education, technical assistance and enforcement efforts as resources allow.
- 5F. Ecology will provide technical and educational services on local jurisdiction Critical Aquifer Recharge Area plans and ordinances related to the protection of groundwater depending on needs and as resources allow.
- 5G. Ecology and EPA will coordinate on EPA-funded projects that have the potential to impact state groundwater resources.

Activities and Measures - Underground Injection Control (UIC)

- 5G. Ecology will protect drinking water and groundwater quality by implementing the Underground Injection Control (UIC) program and associated UIC Rule (WAC 173-218). Ecology will:
 - •Implement the UIC rule program by completing out-reach activities to better educate the public and private well owners on the rule program, such as developing guidance on well assessments, distributing brochures to local governments, and offering training as needed.
 - •Provide technical assistance to owners of private and publicly owned UIC wells.
 - Submit reports to EPA in a timely manner, and continue to work with EPA to ensure the appropriate information is provided in a format that meets each agency's needs. Ecology will submit inventory, inspection and closure information to EPA electronically. (2011 PAMs SDW 7b and 8)
 - If requested, Ecology will conduct joint UIC inspections with EPA. If UIC wells are

Ecology and EPA will complete the exploration of the options, technical issues, and logistics required to transfer data from Ecology's UIC database to the national UIC database system and implement a data flow. If Ecology receives EPA Information Exchange Network Grant Program money, Ecology will use the grant money to prepare and upload the UIC data to EPA's Central Data Exchange Network.

found to be out of compliance, Ecology and/or EPA will take appropriate actions to correct

To: Mann, Laurie[mann.laurie@epa.gov]; Croxton, Dave[Croxton.David@epa.gov]

Cc: Eaton, Thomas[Eaton.Thomas@epa.gov]

From: Henszey, Jo

Sent: Thur 1/23/2014 12:29:29 AM

Subject: FW: Deschutes River/Budd Inlet TMDL Completion Schedule

dept of ecol TMDL 001.pdf

Laurie and Dave,

As you know, Ecology is reconsidering the option of splitting this TMDL project into two submittals – freshwater and marine water. I scheduled a meeting last week with Lydia Wagner and Andrew Kolosseus (Ecology's Water Cleanup Plan staff) to discuss this option. Ecology staff appear to be in favor of splitting it out but no decisions have been made as they are waiting until their new TMDL Section Manager is on board. They assured me that once an internal decision has been make, they will brief both EPA and the Squaxin Tribe prior to any discussion with other stakeholders.

Attached is a letter from Thurston County that was forwarded to me by Lydia. The letter, from the Thurston County Commissioners, recommends Ecology continue moving forward with "both" the freshwater and marine components of the TMDL. Interestingly enough, Ecology's new Section Manager, Rich Doenges, is formerly employed by Thurston County and is well versed in this topic. I understand he is expected to report to duty next week.

I spoke with Dave Ragsdale last week, prior to meeting with Lydia and Andrew. It is his opinion that if Ecology splits it out, they will NEVER complete the marine water portion. Also, at some point we need to discuss the science surrounding the Capitol Lake vs estuary alternatives and whether EPA wants to take a position on this controversial issue.

The Deschutes River/Budd Inlet/Capitol Lake TMDL Advisory Group meets next Thursday.

Thanks,

Jo

From: Wagner, Lydia (ECY) [mailto:LBLA461@ECY.WA.GOV]

Sent: Wednesday, January 22, 2014 10:03 AM

To: Henszey, Jo

Cc: akol461@ecy.wa.gov; Zentner, Greg (ECY)

Subject: FW: Deschutes River/Budd Inlet TMDL Completion Schedule

Hi Jo.

Since Andrew and I met with you last week to talk about the possibility of splitting the Deschutes

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TMDL into two submittals, we thought we'd let you know about Thurston County's position. We will formally respond after Rich Doenges joins us next week as our new Section Manager. We will, of course, continue to keep you updated when we make our decision, and provide the rationale.

Lydia

From: Sandra Romero [mailto:RomeroS@co.thurston.wa.us]

Sent: Tuesday, January 21, 2014 2:08 PM

To: Kolosseus, Andrew (ECY); Wagner, Lydia (ECY)

Cc: Sue Davis; Starry, Art (DOHi)

Subject: Deschutes River/Budd Inlet TMDL Completion Schedule

Dear Ms. Wagner & Mr. Kolosseus,

Please see the attached letter from the Thurston County Board of Commissioners regarding the Deschutes River/Budd Inlet TMDL completion schedule.

Sincerely,

Sandra

Sandra Romero, District 2

Vice Chair, Thurston County Board of Commissioners



Cathy Wolfe
District One
Sandra Romero
District Two
Karen Valenzuela
District Three

BOARD OF COUNTY COMMISSIONERS

January 17, 2014

Lydia C. Wagner Andrew Kolosseus Water Cleanup Plan (TMDL) Coordinators WA Department of Ecology PO Box 47775 Olympia, WA 98504-7775

Subject: Deschutes River/Budd Inlet TMDL Completion Schedule

Dear Ms. Wagner and Mr. Kolosseus:

We understand that you are seeking input on options for revising the Deschutes River/Budd Inlet TMDL completion schedule. Specifically, the decision under discussion is whether to split the TMDL into a freshwater TMDL cleanup plan, with a "fast track" for completion, and a marine water TMDL cleanup plan that would take several more years to complete. As we understand the issue, Ecology has computer model information demonstrating that water quality violations in Budd Inlet are caused not only from pollution sources within the watershed, but also from pollution sources outside of the watershed and outside of Thurston County jurisdictions' control. This means that Ecology will have to mandate that other counties, cities, and/or sewer utilities in Puget Sound take actions, such as nutrient removal at sewage treatment plants, to achieve water quality standards in Budd Inlet.

Thurston County agencies and citizens have been actively working to improve water quality in streams and South Puget Sound. The LOTT regional wastewater treatment facility has had nitrogen removal since the early 1990's and been producing Class A reclaimed water since 2004. To further protect Budd Inlet, LOTT's long-term strategy is to construct satellite treatment plants and use and/or infiltrate the reclaimed water produced into ground water at facilities upstream in the watershed rather than discharge directly to marine water. LOTT is currently undertaking a multi-million dollar study to ensure that infiltrating the reclaimed water does not have a negative impact on drinking water supplies and other water resources. With our partners, we are developing a regional strategy to convert onsite sewage systems to sewer where needed within the urban growth area, because we realize that converting some neighborhoods from onsite systems to sewer could remove thousands of pounds of nitrogen from an estimated 5.5 millions of gallons of sewage every day before it infiltrates ground water. That ground water provides the base flow for our streams, including the Deschutes River. Ecology data shows that the Deschutes River has the highest nitrogen concentration of all Puget Sound rivers.

Building #1, Room 269, 2000 Lakeridge Drive SW, Olympia, Washington 98502-6045 (360) 786-5440 TDD (360) 754-2933

We are not waiting to act. However, as your research shows, the Deschutes watershed and Thurston County residents cannot succeed alone. The Puget Sound Partnership's 2013 State of the Sound report says, "The largest driver of declining marine water quality has been increasing nitrate concentrations. Over the past 14 years, nitrate levels have increased steadily despite ocean variability." The water quality problems in Budd Inlet and Puget Sound are consequences of pollution throughout the region, and it is essential that everyone take action to significantly reduce their share of nitrogen pollution to South Puget Sound.

We request that Department of Ecology finish the Deschutes River/Budd Inlet TMDL as soon as possible for the entire watershed, both freshwater and marine. It is one integrally connected system with activities in one area affecting water quality in another. We expect that there will need to be pollution load reductions for unpermitted (nonpoint) as well as permitted (point) sources, and in the upland and along fresh water bodies and the marine water. To address the external loading sources, we suggest that Ecology set a nutrient load allocation in the TMDL for those external sources entering Budd Inlet and begin the necessary work with other South Sound jurisdictions to reduce their contribution.

This TMDL began in 2002, and Thurston County has been a committed participant in the process throughout. However, the longer the process takes, and the older the data that serves as the basis for action recommendations becomes, the less effective the TMDL will be. It is imperative that the process be completed, so that our watershed partners and we can direct our resources to on-the-ground water quality improvements.

Sincerely,

Karen Valenzuela, Chair

Sandra Romero, Vice Chair

Cathy Wolfe, Commissioner

To: Croxton, Dave[Croxton.David@epa.gov]

From: Ragsdale, Dave (ECY)
Sent: Wed 6/5/2013 9:20:36 PM
Subject: FW: ecology's TMDLs
2013 projects list for Dave R.docx

From: Ragsdale, Dave (ECY)

Sent: Monday, May 20, 2013 4:45 PM

To: 'Mann, Laurie'

Subject: RE: ecology's TMDLs

Laurie. I will not have time to work on, or even open the spread sheet you sent before I leave today. However, I attached a listing of assigned TMDL projects that I intended to go over with you and Dave. I planned to add more to it before we meet in hopes it would help whomever took on these projects.

Note: For the Soos and Squalicum Creek projects, I am recommending we ask Dino if he can help with those projects (whether I am here or gone). He is our only HSPF landscape modeler and we need some help to fix up the contractor's deliverable. Dino has provided some help already and I think he would like to be formally involved if his other work allows time. Although undertaking these project was mostly my idea, I admit to being way past my technical limits with the modeling challenges associated with them.

I only envision Lake Whatcom coming in for EPA review during my remaining tenure.

Hope this is adequate for your needs at this time. I'm scheduled back on June 3. Dave

From: Mann, Laurie [mailto:mann.laurie@epa.gov]

Sent: Monday, May 20, 2013 10:05 AM

To: Ragsdale, Dave (ECY) **Subject:** ecology's TMDLs

Hey Dave,

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Dustin send me this spreadsheet a couple months ago, and I'm attempting to identify the TMDLs that are assigned to people (especially you & your TMDLs that might be unfinished when you cash in your golden ticket), and those that are unassigned - - I'm also trying to pin down the date for completion of the TMDL.

Would you mind taking a quick look at this & including any info you have?

Thanks,

Lbm

Laurie Mann | Environmental Engineer

U.S. Environmental Protection Agency | Region 10

P: (206) 553.1583 | mann.laurie@epa.gov

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Ongoing TMDL work assigned to David Ragsdale

- Westside FS Temperature TMDL (draft ready to launch, is OWW management?)
- Burnt Bridge Creek multi parameter TMDL (project delayed as Ecology technical staff focused on Soos Creek and Clarks Creek)
- Deschutes River/Budd Inlet multi-parameter TMDL (completion now connected to South Sound D.O. study, questions about assuming N reductions at north boundary of Budd Inlet→ meaning that 'upstream' WWTPs will have to reduce N from their discharges. It is unlikely Ecology has the muscle to do such heavy lifting. If they even try, expect the state to offer WWTPS zillon year schedules to upgrade their treatment. Pro- and anti- Capitol Lake factions have been focused on this TMDL, thinking it will force a decision about the Lake's future. Modeling indicates Budd Inlet WQ would improve w/o the Lake in place.
- South Sound D.O. "study" (calibrated model expected end of Oct. 2013. EPA will likely need to push the state on what could be the most important TMDL yet undertaken in WA, it would certainly be a plus for Puget Sound)
- Little Spokane River D.O. and pH (state hatchery near mouth needs stringent WLA for P as there is no loading capacity nor RA that NPS reductions will occur (aka, Leavenworth National Fish Hatchery-Wenatchee pH TMDL))
- Hangman Creek D.O. and pH (Ecology wants to avoid pushing small dischargers out of Creek and put this TMDL on indefinite hold (→ implications for Spokane 'deal')
- Drayton Harbor FC (technical work completed but Ecology-BFO staff swamped)
- Whatcom Creek FC (only need public notice but BFO staff swamped)
- Lake Whatcom D.O. (out for public notice, provided comments by EPA, includes surrogate targets for effective developed area which accompanies allocations for P)

- Soos Creek D.O., temperature and aquatic health TMDL (contractor draft received May 15, 2013 significant problems with their analysis for %IC targets -> needs review by modelers with HSPF expertise to fix.)
 Recommend we ask Dino Marshalonis if he can help as he is our only HSPF modeler in Region 10. Similar need for Squalicum Creek stormwater pilot.
- Squalicum stormwater pilot TMDL (contractor draft received May 15, 2013

 needs more work to develop targets for IC that are supported by
 bioassessment)
- Forest Team member, Ag Team member, liaison with Ecology